

CLAIMS

1. A static eliminator for neutralizing and eliminating static electricity by applying an ultraviolet ray to a static elimination target, the static eliminator comprising at least one means for applying the ultraviolet ray and the means for applying the ultraviolet ray being formed of an ultraviolet light emitting diode.
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- 10 2. A static eliminator according to claim 1 further comprising optical means for condensing the ultraviolet ray from the ultraviolet light emitting diode and applying the ultraviolet ray to the static elimination target.
- 15 3. A static eliminator according to claim 1 further comprising an air nozzle for producing a flow of air ionized by the ultraviolet ray from a side of the ultraviolet light emitting diode toward the static elimination target.
- 20 4. A static eliminator according to claim 1 further comprising a wall member for ejecting ions under ultraviolet irradiation in a position facing at least a part of an optical path extending from the ultraviolet light emitting diode to the static elimination target.
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5. A static eliminator according to claim 4, wherein the wall member includes a photocatalyst or is formed of a photoemissive

member.

6. A static eliminator according to claim 1 further comprising
a wall member for generating ozone under ultraviolet irradiation
5 in a position facing at least a part of an optical path extending
from the ultraviolet light emitting diode to the static
elimination target.
7. A static eliminator according to claim 1 further comprising
10 a wall member having a function of absorbing or decomposing ozone
generated by ultraviolet irradiation in a position facing at
least a part of an optical path extending from the ultraviolet
light emitting diode to the static elimination target.
- 15 8. A static eliminator according to claim 1, wherein a plurality
of ultraviolet light emitting diodes are mounted to a support
member disposed to face the static elimination target.
- 20 9. A static eliminator according to claim 8, wherein the support
member has a shape and a size corresponding to the static
elimination target and the ultra violet light emitting diodes
are disposed throughout a face of the support member.
- 25 10. A static eliminator according to claim 8, wherein the support
member is in a ring shape and the plurality of ultraviolet light
emitting diodes are mounted to an inner face of the support member
to thereby concentrate application of the ultraviolet rays from

the ultraviolet light emitting diodes on the static elimination target positioned on a central axis of the support member.

11. A static eliminator for neutralizing and eliminating static
5 electricity by applying an ultraviolet ray to a belt-shaped
static elimination target, the static eliminator comprising an
irradiating head formed by mounting a plurality of ultraviolet
light emitting diodes to a bar-shaped support member and the
irradiating head being disposed in such a direction as to cross
10 the static elimination target in a width direction and being
movable with respect to the static elimination target along the
target.

12. A static eliminator for neutralizing and eliminating static
15 electricity by applying an ultraviolet ray to a
rotationally-symmetric inner or outer peripheral face of a static
elimination target, the static eliminator comprising an
irradiating head formed by mounting a plurality of ultraviolet
light emitting diodes to a support member movable along the inner
20 or outer peripheral face.